



SEQUENCE LISTING

<110> Meulewater, Frank  
Cornelissen, Marc  
Van Eldik, Gerben  
Jacobs, John

<120> Methods and means for delivering inhibitory RNA to  
plants and applications thereof

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<170> PatentIn Ver. 2.0

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<213> Artificial Sequence

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<223> Description of Artificial Sequence: cDNA copy of  
the nucleotide sequence of the genome of TNV-A

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<223> Description of Artificial Sequence: cDNA copy of  
the nucleotide sequence of the genome of TMV-U1

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<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: cDNA copy of  
the nucleotide sequence of the genome of STNV-2

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1245

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<211> 1058

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: cDNA copy of  
the nucleotide sequence of the genome of STMV

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<211> 6355

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: cDNA copy of  
the nucleotide sequence of the genome of TMV-U2

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<211> 2346

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequenc : nucleotide  
 sequence of the tomato phytoene desaturase (pds)  
 encoding cDNA

<400> 6

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 gaaccactcc ctatatcttc taggtgcttt cattcggtcc gaggtgaagaa aagatttttg 180  
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gaattc 2346

<210> 7

<211> 7096

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: nucleotide  
sequence of the tobacco nitrate reductase (nia-2)  
encoding cDNA

<400> 7

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 gtaagcagag acgtgatcac atgaactaga tgtgaatacc acttgcccag tccaccaggt 4860  
 caattcatct agatgtgtaa atcttgacac cagcactggg tcacttttat aacactagca 4920  
 ttttaacaaca tttcatcctt gaacattact tgggctaatt aataagtatt tttttttata 4980  
 tactctaaaa attgtaatta cataaatgaa ttttaacttat acacgctgac aatgttacta 5040  
 attccacttt ttacggacgg ttatctatag aaatcattta ggtgaaacaa ttctcttaca 5100  
 ctatgatcag tgtagtagta taatgggtat tacattttct aaatattgtg ctatgttgca 5160  
 atgttcaggg aatgatgaat aattgctggt tccgagtaaa gatgaatgtg tgcaagcctc 5220  
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 gaaagggaaa tttcttagtt catggcaaac agaagtttgc caagaagttg gccatgatag 6120  
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 ttcaggatc tattaagaa ggatggaagt acagcattgg ttttattaca gaagccattt 6360  
 tgagagaaca tatccctgag ccatctcaca caaactggc tttggcttgt ggaccacctc 6420  
 ctatgattca atttgctggt aatccaaact tggagaagat gggctatgac attaaggatt 6480  
 ccttattggt gttctaattt taaaaacaaa acaatatctg caggaataaa tttttttttt 6540  
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 gtagttctta catttttatt ttttagaatt tttttaaac ttaggatata aaggttttct 6660  
 cttccaacaa agtgattctt tagggaagaa atgtactgta ctgtactagt atgtctaagc 6720  
 cgaaagttgt aatgtttacc atgacaaatt gtattcaatt cctcatggaa tagtaacatt 6780  
 gtgttcattgt gtcttcctgt aagcgatctt caaaatatca atgtatata atagtaattg 6840  
 caaaccattg ttccttttcc cgatgtagtt aactactctt tctttagctt ctagtctctg 6900  
 gtgaatattt ttttttctat aactctttta ttaatacggc cttaaataag agaaaagttt 6960  
 aaaccacgaa tatcattatg cagacgtata ggtaattaat ctactttttg aaaaaaaatc 7020  
 tattttcttt atgtggctct tcaaaataat attctagaac cttttgtata ttccttttta 7080  
 acttctattt agtttt 7096

<210> 8

<211> 1839

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: nucleotide  
sequence of the tobacco nitrite reductase (nir-1)  
encoding cDNA

<400> 8

tttctattaa atttctggca ccttcattgc caaatccagc tagattttcc aagaatgctg 60  
tcaagctcca cgcaactccg ccgtctgtgg cagcgccgcc agctgggtgt ccagagggtg 120  
ctgctgagag gctagaacct agagttgagg aaaaagatgg ttattggata ctcaaggagc 180  
agtttagaaa aggcataaat cctcaagaaa aggtcaagat tgagaagcaa cctatgaagt 240  
tgttcatgga aaatgggtatt gaagagcttg ctaagatacc cattgaagag atagatcagt 300  
ccaagcttac taaggatgat attgatgtta ggcttaagtg gcttggcctc ttccatagga 360  
gaaagaacca atatgggagg ttcatgatga gattgaagct tccaaatgga gtaacaacga 420  
gtgcacagac tcgatacttg gcgagtgtga taaggaaata cgggaaagaa ggatgtgctg 480  
atattacaac gaggcaaaat tggcagattc gtggagttgt actgcctgat gtgcccagaga 540  
tactaaaggg actagcagaa gttgggttga ccagtttgca gagtggcatg gacaatgtca 600  
ggaatccagt aggaaatcct cttgctggaa ttgatccaga agaaatagta gacacagggc 660  
cttactactaa tttgctctcc caatttatca ctggcaattc acgaggcaat cccgcagttt 720  
ctaacttgcc aaggaagtgg aatccgtgcy tagtaggtc tcatgatctt tatgaacatc 780  
cccatatcaa cgatctcgcg tacatgcctg ccacgaaaga tggacgattt ggattcaacc 840  
tgcttggtgg tgggttcttc agcgcaaaaa gatgtgatga ggcaattcct cttgatgcat 900  
gggttccagc tgatgatgtt gttccggttt gcaaagcaat actggaagct tttagagatc 960  
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ctccagagga cttggttcag aaacaatggg aaagaagaga ttatcttggg gtacatccac 1140  
aaaaacaaga aggtacagc tttattggtc ttcacattcc agtgggtcgt gttcaagcag 1200  
acgatatgga tgagctagct cgttttagctg atgagtatgg ttcaggagag atccggctta 1260  
ctgtggaaca aaacattatt attcccaaca ttgagaactc aaagattgag gcaactgctca 1320  
aagagcctgt tctgagcaca ttttcacctg atccacctat tctcatgaaa ggtttagtgg 1380  
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tgataactga agaggttcaa cggcaagttt ctttgacacg gccagtgagg atgcactgga 1500  
caggctgcc gaatacgtgt gcacaagttc aagttgcgga cattggattc atgggatgcc 1560  
tgactagaga taagaatgga aagactgtgg aaggcgccga tgttttctta ggaggcagaa 1620  
tagggagtga ttcacatttg ggagaagtat ataagaaggc tgttccttgt gatgatttgg 1680  
taccacttgt tgtggactta ctagttaaca actttggtgc agttccacga gaaagagaag 1740  
aaacagaaga ctaataaaat ttagaatagt tggtgatttt gctgtgttca taacatgtaa 1800  
tgtatgataa atcaatgcaa acatttctac ctacgtgag 1839

<210> 9

<211> 1294

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: cDNA of the  
beta-1,3-glucanase of Nicotiana plumbagenifolia

<400> 9

ttgctcttca aatggctgct attatactgc taggattgct tgtttccagc actgagatag 60  
 taggagctca atcagtaggt gtttgctacg gaatgctggg caacaacttg ccaccagcat 120  
 cacaagttgt acaactgtac aagtcaaaaa acataagaag aatgaggctt tatgatccaa 180  
 atcaagcagc tttacaggct ttaagaggct ccaacattga agttatgtta ggagttccca 240  
 attcagatct ccaaaacatt gctgctaacc cctcaaagtc aaataattgg gtccagagga 300  
 atgtcagaaa tttctggcca gccgttaaat ttaggtacat tgccgttgga aatgaagtca 360  
 gccctgtaac aggcatctct tcaacttacc gatatcttct tccggccatg aggaacattc 420  
 ggaatgcgat ttcttcagca ggtttgcaaa acaatatcaa agtctcaagt tctgtagaca 480  
 tgaccttgat tgggaactct tttccaccat cacagggttc gtttaggaac gacgttaggt 540  
 cgttcattga tccgattatt ggggttgtaa ggcgcataaa ttcgccttta ctcgtaaca 600  
 tttatcctta ttttagctat gctggtaatc cgcgcgatat ttctctcccc tatgctcttt 660  
 tcaactgctc aaatgtggtg gtacaagatg gttcacttgg atatagaaac ttatttgatg 720  
 caatgtcggg tgctgtgtat gctgccctgt ctcgagccgg agggggctcg atagagattg 780  
 ttgtgtccga gagtggctgg ccatctgctg gcgcatttgc cgcgacaaca aacaatgcag 840  
 caacttacta caagaactta attcagcatg taaaagggg tagtccaaga aggcctaata 900  
 aagtcattga gacctattta tttgctatgt ttgatgagaa taacaaaaac cctgaattgg 960  
 agaaacattt tggactcttt tcccccaaca agcagcccaa atatccactc agctttgggt 1020  
 tttcagatag atattgggac atttctgctg aaaataatgc tactgcagct tctctcataa 1080  
 gtgagatgtg ataagagagt tctctttaa tctctttaca tggatggaaa acttagtacc 1140  
 aataactaga ttgtttcttt ctttatgcaa ttttcttgta atgagagact agtacttgct 1200  
 ctctgtgtcc ttgtggagag taactagaga caaatgaagc aaataacata aataattgag 1260  
 tgttgattct gcaatgataa atagaaaaaa aaaa 1294

<210> 10

<211> 720

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: green  
 fluorescent protein encoding region

<400> 10

atggtgagca agggcgagga gctgttcacc ggggtggtgc ccatcctggt cgagctggac 60  
 ggcgacgtaa acggccacaa gttcagcgtg tccggcgagg gcgaggcgga tgccacctac 120  
 ggcaagctga ccctgaagtt catctgcacc accggcaagc tgcccgtgcc ctggcccacc 180  
 ctctgaccca ccctgacctt cggcgtgcag tgcttcagcc gctaccccga ccacatgaag 240  
 cagcagcact tcttcaagtc cgccatgccc gaaggctacg tccaggagcg caccatcttc 300  
 ttcaaggacg acggcaacta caagaccgcg gccgaggtga agttcgaggg cgacaccctg 360  
 gtgaaccgca tcgagctgaa gggcatcgac ttcaaggagg acggcaacat cctggggcac 420  
 aagctggagt acaactacaa cagccacaac gtctatatca tggccgacaa gcagaagaac 480  
 ggcatcaagg tgaacttcaa gatccgccac aacatcgagg acggcagcgt gcagctcgcc 540  
 gaccactacc agcagaacac ccccatcggc gacggccccg tgctgtgtcc cgacaaccac 600  
 tacctgagca ccagtcgcgc cctgagcaaa gaccccaacg agaagcgga tcacatggtc 660  
 ctgctggagt tcgtgaccgc cgccgggata actctcgga tggacgagct gtacaagtaa 720

<210> 11

<211> 1809

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial

Sequence: beta-glucuronidase encoding region

<400> 11

atggtccgtc ctgtagaaac cccaaccgt gaaatcaaaa aactcgacgg cctgtgggca 60  
ttcagttctgg atcgcgaaaa ctgtggaatt gatcagcgtt ggtgggaaag cgcgttacaa 120  
gaaagccggg caattgctgt gccaggcagt tttaacgata agttcgccga tgcagatatt 180  
cgtaattatg cgggcaacgt ctggtatcag cgcgaagtct ttataccgaa aggttgggca 240  
ggccagcgta tcgtgctgcy tttcgatgcy gtcactcatt acggcaaaagt gtgggtcaat 300  
aatcaggaag tgatggagca tcaggggcggc tatacgccat ttgaagccga tgtcacgccc 360  
tatgttattg ccgggaaaaa tgtacgtatc accgtttgtg tgaacaacga actgaactgg 420  
cagactatcc cgccgggaat ggtgattacc gacgaaaacg gcaagaaaaa gcagtcttac 480  
ttccatgatt tctttaacta tgccggaatc catcgcagcg taatgctcta caccacgccc 540  
aacacctggg tggacgatat caccgtgggt acgcatgtcg cgcaagactg taaccacgcy 600  
tctgttgact ggcaggtggg ggccaatggt gatgtcagcg ttgaactgcy tgatgcggat 660  
caacaggtgg ttgcaactgg acaaggcact agcgggactt tgcaagtggg gaatccgcac 720  
ctctggcaac cgggtgaagg ttatctctat gaactgtgcy tcacagccaa aagccagaca 780  
gagtgatgata tctaccgctc tcgcgtcggc atccggtcag tggcagtga gggcgaaacag 840  
ttcctgatta accacaaaacc gttctacttt actggctttg tgcgtcatga agatgcggac 900  
ttacgtggca aaggattcga taactgtgcy atggtgcacg accacgcatt aatggactgg 960  
attggggcca actcctaccg tacctcgcat tacccttacg ctgaagagat gctcgactgg 1020  
gcagatgaac atggcatcgt ggtgattgat gaaactgctg ctgtcggctt taacctctct 1080  
ttaggcattg gtttcgaagc gggcaacaag ccgaaagaac tgtacagcga agaggcagtc 1140  
aacggggaaa ctcagcaagc gcacttacag gcgattaaag agctgatagc gcgtgacaaa 1200  
aaccacccaa gcgtgggtgat gtggagtatt gccaacgaac cggatacccg tccgcaagtg 1260  
cacgggaata tttcgccact ggcggaagca acgcgtaaac tcgacccgac gcgtccgac 1320  
acctgcgtca atgtaatggt ctgcgacgct cacaccgata ccatcagcga tctctttgat 1380  
gtgctgtgcc tgaaccgtta ttacggatgg tatgtccaaa gcggcgattt ggaaacggca 1440  
gagaaggtac tggaaaaaga acttctggcc tggcaggaga aactgcatca gccgattatc 1500  
atcaccgaat acggcgtgga tacgttagcc gggctgcact caatgtacac cgacatgtgg 1560  
agtgaagagt atcagtgtgc atggctggat atgtatcacc gcgtctttga tcgcgtcagc 1620  
gccgtcgtcg gtgaacaggt atggaatttc gccgattttg cgacctcgca aggcattattg 1680  
cgcgttggcg gtaacaagaa agggatcttc actcgcgacc gcaaaccgaa gtcggcggct 1740  
tttctgctgc aaaaacgctg gactggcatg aacttcggtg aaaaaccgca gcagggaggc 1800  
aaacaatga 1809

<210> 12

<211> 411

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: cDNA copy of  
part of the region of a TMV-U2 variant comprising

the origin of assembly

<400> 12

ccctcgccaa ttgaactcac tgaaaaagtt gttgatgagt tcgtagatga agtaccgatg 60  
gctgtgaaac tcgaaagggt cgggaaaaca aaaaagagag tggtaggtaa taatgttaat 120  
aataagaaaa taaataatag tggtaagaag gggttgaaag ttgaggaaat tgaggataat 180  
gtaagtgatg acgagtctat cgcgtcatcg agtacgtttt aatcaatatg ccttatacaa 240  
tcaactctcc gagccaattt gtttacttaa gttccgctta tgcagatcct gtgcagctga 300  
tcaatctgtg tacaaatgca ttaggtaacc agtttcaaac gcaacaagct aggacaacag 360  
tccaacagca atttgcggtat gcctggaaac ctgtgcctag tatgacagtg a 411

<210> 13

<211> 198

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: cDNA copy of  
STMV leader region

<400> 13

agtaaaactt accaatcaaa agacctaacc aacaggactg tcgtgggtcat ttatgctggt 60  
gggggacata gggggaaaac atattgcctt cttctacaag aggccttcag tcgccataat 120  
tacttggcgc ccaatttttg gtttcagttg ctgtttccag ctatggggag aggtaagggt 180  
aaaccaaacc gtaaatcg 198

<210> 14

<211> 455

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: cDNA copy of  
STMV trailer region

<400> 14

gacaagtgcg cttgggttatt tcgtgttggt ttaactgaac ctgcacataa gcctttttgga 60  
tcgaagggtta aacgatccgc tcctcgcttg agcttgaggc ggcgatatct ttatgtcaac 120  
agagacactt tgggtctatgg ttgtataaca atagatagac tcccgtttgc aagattaggg 180  
ttaacagatc ttgccgttag tctggtttag gcgtaaccgg ccttgattta tggaatagat 240  
ccattgtcca atggctttgc caatggaacg ccgacgtggc tgtataatac gtcgttgaca 300  
agtacgaaat cttgttagtg tttttccctc cacttaaadc gaagggtttt gttttggtct 360  
tcccgaacgc atacgttagt gtgactaccg ttgttcgaaa caagtaaac aggaaggggg 420  
ttcgaatccc tccctaaccg cgggtaagcg gccca 455

<210> 15

<211> 1971

<212> DNA



<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: cDNA copy of  
part of the genome of a TMV-U1 variant, comprising  
MP and CP genes

<400> 15

ggaacactg tgattatagc tgcattgttg gcctcgatgc ttccgatgga gaaaataatc 60  
aaaggagcct tttgtggtga cgatagtctg ctgtacttcc caaagggttg tgagtttccg 120  
gatgtgcaac actccgcgaa tcttatgttg aattttgaag caaaactgtt taaaaaacag 180  
tatggatact tttgcggaag gtatgtaata catcacgaca gaggatgcat tgtgtattac 240  
gatccccctaa agttgatctc gaaacttggt gctaaacaca tcaaggattg ggaacacttg 300  
gaggagttca gaaggtctct ttgtgatgtt gctgtttcgt tgaacaattg tgcgtattac 360  
acacagttgg acgacgctgt atgggagggt cataagaccg cccctccagg ttcgtttgtt 420  
tataaaagtc tgggtgaagta tttgtctgat aaagtctctt ttagaagttt gtttatagat 480  
ggctctagtt gttaaaggaa aagtgaatat caatgagttt atcgacctga caaaaatgga 540  
gaagatctta ccgtcgatgt ttaccctctg aaagagtgtc atgtgttcca aagttgataa 600  
aataatggtt catgagaatg agtcattgtc agaggtaaac cttctcaaag gagttaagct 660  
tattgatagt ggatacgtct gtttagcccg tttggctcgt acgggagagt ggaacttgcc 720  
tgacaattgc agaggaggtg tgagcgtgtg tctggtggac aaaaggatgg aaagagccga 780  
cgaggccact ctcgatctt actacacagc agctgcaaag aaaagatttc agttcaaggt 840  
cgttcccaat tatgtataaa ccaccagga cgcgatgaaa aacgtctggc aagttttagt 900  
caatattaga aatgtaaaga tgtcagcggg tttctgtccg ctttctctgg agtttgtgtc 960  
ggtgtgtatc gtttatagaa ataataaaa attaggtttg agagagaaga tcacaagtgt 1020  
gagagatgga gggcccatgg aacttacaga agaagttgtt gatgagttca tggagatgt 1080  
ccctatgtca atcaggcttg caaagtttct atctcgaacc ggaaaaaaga gtgatgtccg 1140  
taaagggaat attagtagta gtgatcgtg agcgccgaac aagaactata gaaatgttaa 1200  
ggattttgga ggaatgagtt ttaaaaagaa taatttaatc gatgatgatt cggagactac 1260  
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gtgttcttgt cagcagcgtg ggcgcgacca atagagttaa ttaatttatg tactaatgcc 1380  
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aggtacaatg cggattatga cccgctagtc acagcactgt taggtgcatt tgacactaga 1560  
aatagaataa tagaagttga aaatcaggcg aacccacaaa ctgccgaaac gttagatgct 1620  
actcgtagag tagacgacgc aacgggtggc ataaggagcg ctataaataa tttagtagta 1680  
gaattgatca gaggaaccgg atcttataat cggagctctt tcgagagctc ttctggtttg 1740  
gtttggaact ctggctctgc aacttgaggt agtcaagatg cataataaat aacggattgt 1800  
gtccgtaatc acacgtggtg cgtacgataa cgcatagtgt tttccctcc acttaaatcg 1860  
aagggttgtg tcttgatcgc cgcgggtcaa atgtatatgg ttcataatac tccgcaggca 1920  
cgtaataaag cgaggggttc gaatcccccc gttacccccg gtagggggcc a 1971